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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,522	10/07/2003	Ravi Kuchibhotla	CS23738RL	5055

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MOTOROLA INC
600 NORTH US HIGHWAY 45
ROOM AS437
LIBERTYVILLE, IL 60048-5343

EXAMINER

APPIAH, CHARLES NANA

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/680,522

Applicant(s)

KUCHIBHOTLA ET AL.

Examiner

Charles Appiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 1-16, 19, 21 and 25-38 is/are rejected.
- 7) ☒ Claim(s) 17 and 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 27-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 27, 29 and 33 appear to be directed non-functional descriptive material since they amount to claims to an information (request) message including an "information block" and under one interpretation, having a "data field" "for" either "a number" indicating how many" (claims 27, 29) or "indicating" that a network entity may select ..." (33). This is no more than "a mere arrangement of data" lacking any positively recited functionality since the function of "indicating" relates to the data field not definitively tied to any data claimed as located in the data field. Therefore there is no positively recited data functionality of "indicating" as claimed.

Claim 28 amounts to merely "functional descriptive" since, since it positively contains the claimed function of the information block being "a core-network identifying portion". Claim 28 may be made statutory if a "computer-readable medium" or equivalent acceptable language were claimed.

Claim 30-32, amounts to "functional descriptive material" since they recite a message with an information block that includes "a pointer to a location where identities ... may be obtained" with respect to claims 30 and 31, and a

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message with an information block positively reciting functionality as including a pseudo network identity "identifying" multiple core networks sharing a common access network with respect to claim 32. Claims 30-32 maybe corrected by placing the overall message on a "computer-readable medium" or equivalent acceptable language.

Claims 27-33 are not being treated on the merits

Claim Rejections - 35 USC § 112

3. Claims 27-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is not clear and adequately disclosed what constitute the functionalities of the claimed "communications message", "communication system message", and "network connection request message".

4. Claims 27-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of the claimed "communications message", "communication system message", and "network connection request message" makes the claims indefinite as it is not clear what constitute the invention as claimed.

Claim Objections

5. Claims 5, 6 and 19 are objected to because of the following informalities:

The recitation of the of the limitation "information about multiple core networks indicating how many multiple core networks share the common access network" in claim 5, fails to recite any positive functional step "for the method of claim 1".

The recitation of "the information about the multiple core networks sharing the common access network includes a number corresponding to the number of multiple core networks sharing the common access network" and "each of the multiple core networks associated with a corresponding number within range specified by the number of multiple core networks sharing the common access network:", in claim 6, fails to recite any positive functional step.

In claim 7, the recitation of "at least some of the multiple core networks sharing the common access network having corresponding different core network identities" do not show any positive functional step with respect to the method of claim 1.

Regarding claim 19, it appears "access networks" on line 9 of claim 19 should be changed to "access network" to correct an apparent typographical error.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 8-10, 14, 15, 25, 36, 37 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by **Van Den Heuvel et al. (6,223,030)**, (hereinafter 'Heuvel').

Regarding claims 1 and 14, Heuvel discloses a method in a communication device (20), the method comprising: receiving network system information, the network system information including information about multiple core networks sharing a common access network (common communication system 19), without identifying the multiple core networks (common system sending a list of systems available for use in network 10, col. 2, lines 50-58), attempting to connect to a core network based on the information about multiple core networks sharing the common access network (subscriber unit determining which system it desires to utilize and receiving an enabling program for the selected communication system, see col. 2, lines 59-65).

Regarding claims 2 and 15, Heuvel further discloses automatically selecting the core network to which the communication device attempts to connect among the multiple core networks sharing the access network

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(transmitting of enabling program by common communication system depending on system selected by subscriber unit, see col. 3, lines 12-39).

Regarding claim 4, Heuvel further discloses attempting to connect to the core network identified by a network entity (subscriber unit configures itself to operate on the selected communication system, see col. 3, lines 65-67).

Regarding claim 5, Heuvel further discloses (as best understood by examiner), providing information about the multiple core networks indicating how many multiple core networks share the common access network (common system sending a list of systems available for use in network 10, col. 2, lines 50-58), selecting the core network to which the communication device attempts to connect by selecting one of the multiple core networks without knowing the identities of the multiple core networks (subscriber unit determining which system it desires to utilize and receiving an enabling program for the selected communication system, see col. 2, lines 59-65, col. 3, lines 12-39).

Regarding claim 8, Heuvel teaches testing the compatibility of a selected system prior to the subscriber being able to access the selected system (see col. 4, lines 7-10) and receiving identities for at least some of the multiple core networks sharing the common access network (see col. 4, lines 25-30). Heuvel teaches the subscriber unit being able to access the selected communication only when the test is satisfactory, it is inherent that a connection attempt would be rejected upon an unsatisfactory compliance test., which meets receiving a connection rejection from the core network to which the

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communication device attempts to connect, and receiving identities for at least some of the multiple core networks sharing the common access network.

Regarding claim 9, Heuvel inherently teaches receiving the identity of the core network to which the communication device attempts to connect (see col. 4, lines 10-11).

Regarding claim 10, Heuvel further discloses attempting to connect to the core network based on a selection of the core network made at one of the communication device and a network entity (see col. 2, lines 59-65).

Regarding claim 25, Heuvel discloses a method in a communication device, the method comprising: receiving information about multiple core networks sharing a common access network common communication system 19), without identifying the multiple core networks (common system sending a list of systems available for use in network 10, col. 2, lines 50-58), the information including at least one of identities of at least some of the multiple core networks sharing the common core network, core network domain information, information on services supported by at least some of the core multiple networks sharing the common access network (Common communication system also providing a list of requirements of a particular communication system such as display capabilities, power, frequency band, modulation scheme, etc., see col. 3, lines 20-27), and selecting a core network to which the communication device the communication device attempts to connect using the information received (subscriber unit determining which system it desires to utilize and receiving an

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enabling program for the selected communication system, see col. 2, lines 59-65, col. 3, lines 12-39).

Regarding claim 36, Heuvel discloses a method in a communication network entity, comprising: receiving a communication device entity from a communication device (inherent feature of subscriber unit making a request to common communication system after determining which system it desires to use, see col. 2, lines 59-61) and selecting a core network from multiple core networks sharing a common access network for the communication device based on the communication device identity (reception of enabling program for the selected communication system and opening of channel with the selected system, see col. 2, lines 61-65).

Regarding claim 37, Heuvel further discloses inherently receiving the communication device identity from the communication device in response to the network entity requesting the communication device identity (see steps 36-38 of Fig. 2).

Regarding claim 38, Heuvel further discloses inherently receiving a connection request from the communication device, requesting the communication device identity in response to receiving the connection request from the communication device (steps 32-42).

8. Claims 34 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by **Korpela (5,946,634)**.

Regarding claim 34, Korpela discloses a method in a communications network entity (radio access station, 20b) the method comprising: receiving

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preferred core network information from a communication device (see col. 6, lines 38-43), selecting a core network for the communication device (see col. 6, lines 43-46), and giving consideration to the preferred core network information received from the communication device when selecting the core network for the communication device (see col. 6, lines 52-56).

Regarding claim 35, Korpela further discloses receiving the at least one preferred core network from a communication device in a connection request from the communication device (mobile selecting the best available protocol for initiating a required session, see col. 7, lines 35-52).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Van Den Heuvel (6,223,030)**.

Regarding claim 3, Heuvel further presenting the multiple networks for selection at the communication device (see receiving an indication of available communication systems for manual selection (subscriber being able to determine which system it desires to utilize from the list of systems provided by common communication system, see col. 2, lines 50-57), including information on systems within the coverage area of the common communication system (see

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col. 3, lines 12-19), but fails to explicitly teach changing the order of presentation of the multiple core networks.

However, since the subscriber unit selects a communication system by verifying compliance with the requirements of the particular system (see col. 3, lines 20-27), and since the list provided to the subscriber may also include types of features available and system costs (see col. 2, lines 56-58), it would have been obvious to one of ordinary skill in the art to present the multiple core networks in any desired order such as preferred networks are given priority in the presentation order to facilitate appropriate selection of a desired network without unduly using communication resources and also ensures the least cost to subscribers.

Regarding claim 26, Heuvel teaches testing the compatibility of a selected system prior to the subscriber being able to access the selected system (see col. 4, lines 7-10), and receiving identities for at least some of the multiple core networks sharing the common access network (see col. 4, lines 25-30), but fails to teach receiving. Heuvel teaches the subscriber unit being able to access the selected communication only when the test is satisfactory, but fails to teach receiving the information in response to an unsuccessful core network connection attempt.

However, since Heuvel teaches access being granted when the test is satisfactory, it would have been obvious to one of ordinary skill in the art to ensure the capability of receiving additional information when a connection

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attempt is unsuccessful in order to allow subscriber the option of selecting a new network to connect to as desired.

11. Claims 6, 7, 12, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Van Den Heuvel et al** as applied to claims 1 and 25 above, and further in view of **Barber et al. (5,442,806)**.

Regarding claims 6 and 7, Heuvel further discloses the reception of information about the multiple core networks sharing the common access network through the list of systems available (see col. 2, lines 54-58), which indicates the number of multiple core networks sharing the common access network would be known, and attempting to connect to the core network includes transmitting information associated with the core network to which the communication device attempts to connect (inherent in subscriber unit making a request in order to receive an enabling program for the selected communication system, see col. 2, lines 59-62), as well as information on the individual systems (see col. 4, lines 25-38), but fails to explicitly teach that the information include a number associated with a corresponding number of within a range specified by the multiple core networks such that the message for attempting to connect to the core network includes specifying the number associated with the core network, wherein at least some of the multiple core networks sharing the common access network have corresponding different network identities.

Barber discloses a method for selecting a cellular carrier frequency using a preferred system identification codes (SIDs), which is made available to a subscriber (see Fig. 2-5).

Since the list of Heuvel contains information on the individual systems and the subscriber can make a selection readily it would have been obvious to one of ordinary skill to provide any means of identifying the individual systems such as including the use of a number specifying each network or system as taught by Barber in order to facilitate preferred system selection.

Regarding claims 12, 13, and 16 Heuvel discloses attempting to connect to the core network including sending a connection request, the connection request including an identity of the core wireless communications network of the wireless communication device (see col. 3, line 65 to col. 4, line 15), and further teaches providing additional information that may include system costs (see col. 2, lines 56-58), but fails to teach wherein the identity of a home core wireless communications network or the identities of at least some preferred core wireless communications networks.

Barber discloses a method for selecting a cellular carrier frequency using a preferred system identification codes (SIDs), as well information on a home network, which is made available to a subscriber (see Fig. 2-5).

It would therefore have been obvious to one of ordinary skill to incorporate Barber's preferred system selection method into Heuvel's system in order to allow a user options of selecting systems that include taking cost into consideration.

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12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Van Den Heuvel et al** as applied to claim 1 above, and further in view of **Korpela (5,946,634)**.

Regarding claim 11, Heuvel further teaches providing the network system information including information about multiple core networks sharing a common access network (common communication system 19), without identifying the multiple core networks (common system sending a list of systems available for use in network 10, col. 2, lines 50-58), attempting to connect to a core network based on the information about multiple core networks sharing the common access network (subscriber unit determining which system it desires to utilize and receiving an enabling program for the selected communication system, see col. 2, lines 59-65). Heuvel, however, fails to explicitly teach receiving the network information includes receiving system information in a wireless broadcast message.

Korpela discloses wherein periodically, on a broadcast channel the radio access network transmits signals that include network identifying portion indicating the identity of each backbone network to which the radio access network is connected (see col. 6, lines 15-24 and col. 8, lines 44-49).

It would therefore have been obvious to one of ordinary skill in the art to use Korpela's system information broadcast feature with Heuvel's communication system selection method in order to reduce signaling required for the selection of an appropriate network for a desired communication.

Regarding claim 19, Heuvel discloses a method in a communication device, the method comprising: receiving first system information from a first access network, the first system information including a first core network identity and information on how many core networks share the first access network (see col. 2, lines 53-58, col. 3, lines 12-19), and selecting a core network identity based on the number of core networks sharing the first access network (col. 2, lines 60-62), but fails to disclose specifically receiving second system information from a second access network, wherein the second system information include a second core network identity.

Korpela discloses wherein more than one access network can be used to provide information for selecting a backbone network (see col. 7, lines 18-34, col. 8, lines 35-44).

It would therefore have been obvious to one of ordinary skill in the art to provide multiple access networks each of which is capable of providing different system information in order to allow roaming capabilities by connecting to different and diverse unrestricted networks as taught by Korpela.

Allowable Subject Matter

13. Claim 18 is allowed.

14. Claims 17, 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patel (6,795,708) discloses a convergent wireless communication system that can interface with existing telecommunication systems.

Wild et al. (5,862,480) discloses a method for managing service accessibility between differing radio telecommunication networks.

Korpela (6,801,786) discloses a communication system where a plurality of core networks, possibly incompatible with each other, can be connected to an access network.

Nilsson (6,085,110) discloses a method for selecting the connection of a mobile unit to different communication arrangements.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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CA


CHARLES APPIAH
PRIMARY EXAMINER